



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,965	05/31/2005	Arto Isokoski	3501-1100	6356
466	7590	08/24/2007		
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER TIMORY, KABIR A	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/536,965

Applicant(s)

ISOKOSKI ET AL.

Examiner

Kabir A. Timory

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-50, 52-65, 67, 68 and 70-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-50, 52-65, 67, 68 and 70-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. This office action is in response to the amendment filed on July 01, 2007. Claims 37-50, 52-65, 67, 68, and 70-92 are amended. Claims 137-50, 52-65, 67, 68, and 70-92 are pending in this application and have been considered below. Claims 82-92 are added, and claims 51, 66, and 69 are cancelled.
2. The objections to the specification are explained by the amendment; therefore, the objections are withdrawn.
3. The objections to the claims 37-81 are explained by the amendment; therefore, the objections are withdrawn.
4. The rejection 35 U.S.C. 112, second paragraph, to the claim 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention has been clarified by the amendment; therefore, the rejection under 35 U.S.C. 112, second paragraph is withdrawn.

Art Unit: 2611

6. Applicant's arguments with respect to claims 37, 52, and 67 have been considered but are moot in view of new ground(s) of rejection because of the amendment.

7. Applicant arguments regarding claim 37, 52, and 67 have been fully considered but they are not persuasive. The examiner thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meets the claimed limitation as rejected.

(1) Applicant's arguments: "the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained".

(2) The examiner's response: In paragraph 0065, Yamaguchi et al. clearly discloses that broadcasting a program will not be permitted until the permission for broadcasting is granted by the network to the user terminal. Therefore, one of ordinary skill in the art would have been motivated to combine the system and method of Noreen et al. with Yamaguchi et al. to provide more security for the subscribers and to control

Art Unit: 2611

accounting information. Moreover, by doing so the system can maintain the traffic load in the system.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 37-43, 49, 52-58, 64, 67, 68, 70-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al. (US Pub. Number 2002/0183059) in view of Yamaguchi et al. (US Pub. Number 2002/0154699).

Regarding claim 37:

As shown in figure 1, Noreen discloses a method for broadcasting a program the method comprising:

- broadcasting from a broadcasting system (figure 1, 102) a program over a broadcasting path of the broadcasting system (figure 1);
- transferring from a server broadcast program-associated data to a cellular radio network (paragraph 69, lines 39-44);

Art Unit: 2611

- transmitting from a base station (the ground station is interpreted as base station) (figure 1, 108) of the cellular radio network (paragraph 0083, lines 9-10) the broadcast program-associated data (paragraph 0045, lines 6-9) at a specific frequency defined for the cellular radio network (carrier frequency is interpreted as specific frequency) (paragraph 049, lines 5-8) in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program (paragraph 0053, lines 20-33);
- and receiving with a subscriber terminal (the mobile unit is interpreted as subscriber terminal)(figure 11, 320, paragraph 0046, lines 1-5) of the cellular radio network the program and the broadcast program-associated data in such a manner that a program receiver of the subscriber terminal (figure 1, 324) receives from the broadcasting path of the broadcasting system the program (figure 1, paragraph 0046, lines 1-6) and a cellular radio network transceiver of the subscriber terminal (figure 15, 410) receives the broadcast program-associated data at a specific frequency (carrier frequency is interpreted as specific frequency) (paragraph 0049, lines 5-8).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does

Art Unit: 2611

not use the broadcast programme-associated data until after a permission to do so has been obtained.

However, Yamaguchi et al., in the same field of endeavor, teaches wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained (paragraph 0065, lines 1-31).

One of ordinary skill in the art would have clearly recognized that in order to control the broadcasting of a transmitted program, the reproduction of the transmitted program at the subscriber terminal should be established on the basis of the permission from the server. To establish and control the connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to control the reproduction of the broadcasting program at the subscriber terminal as taught by Yamaguchi in picture and sound decoding apparatus picture and sound encoding apparatus and information transmission system. By doing so the system would maintain the traffic load in the system and also; it will provide better security for the subscribers.

Regarding claim 38:

A method as claimed in claim 37, wherein the method also comprises:

- transferring the broadcast program-associated data from the broadcasting system to the server (paragraph 69, lines 39-44).

Regarding claim 39:

A method as claimed in claim 37, wherein:

- the broadcast program-associated data comprises at least one of the following: text, sound, stationary picture, moving picture (the moving picture is interpreted as video) (paragraph 0045, line 3-9 and paragraph 0079, lines 8-12).

Regarding claim 40:

A method as claimed in claim 37, wherein:

- the broadcast program-associated data comprises information defining the broadcasting time of the program (paragraph 0049, lines 4-11).

Regarding claim 41:

A method as claimed in claim 40, wherein the method also comprises:

- starting the presentation of the program in the subscriber terminal on the basis of the information defining the broadcasting time (paragraph 0049, lines 4-15).

Regarding claim 42:

A method as claimed in claim 40, wherein:

- the method also comprises: storing the program in the subscriber terminal on the basis of the information defining the broadcasting time (paragraph 0084, lines 26-34).

Regarding claim 43:

A method as claimed in claim 37, wherein the method also comprises:

Art Unit: 2611

- maintaining in the server a list of subscriber terminals that receive the broadcast program-associated data (subscriber database is interpreted as a server to maintain a list of subscriber terminals that receive the broadcast program-associated data) (figure 3, 205, paragraph 0052, lines 44-5.

mobile terminal.

Regarding claim 49:

A method as claimed in claim 37, wherein:

- the program comprises a radio program (figure 1, 102, 102N),
- the broadcast program-associated data comprises data associated with a radio program (figure 11, 308),
- the broadcasting system comprises a radio broadcasting system (figure 1, 102), the program receiver comprises a radio receiver (figure 15, 324),
- and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (paragraph 0052, line 10-11).

Regarding claim 52:

System for broadcasting a program, the system comprising:

- a broadcasting system configured to broadcast a program over a broadcasting path of the broadcasting system (figure 1, paragraph 0046, lines 1-6);
- a subscriber terminal of a cellular radio network that comprises a program receiver configured to receive a program from the broadcasting path of the broadcasting system (figure 11, 324, paragraph 0047, lines 9-11);

Art Unit: 2611

- a server (broadcaster identification database is interpreted a server) (figure 3, 200) configured to process broadcast program-associated data, which the server is configured to process synchronization information that defines the synchronization of the transmission of the broadcast program-associated data with the broadcasting of the program (paragraph 0053, line 20-32); and
- a cellular radio network (figure 8, 220) configured to receive from the server (figure 3, 200) the broadcast program-associated data and synchronization information and which cellular radio network comprises a base station (figure 8, 224, paragraph 0060, lines 4-7) configured to transmit at a specific frequency defined for the cellular radio network (carrier frequency is interpreted as specific frequency) (paragraph 0060, lines 12-15) the broadcast program-associated data in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program according to the synchronization information (paragraph 0053, line 1-32); and
- the subscriber terminal of the cellular radio network also comprises a cellular radio network transceiver (figure 15 (410), paragraph 0074, lines 5-8) configured to receive the broadcast program-associated data at a specific frequency (the carrier frequency is interpreted as specific frequency) (paragraph 0060, lines 12-15) defined for the cellular radio network.

Noreen et al. discloses all of the subject matter as described above except for specifically wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the

Art Unit: 2611

broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained.

However, Yamaguchi et al., in the same field of endeavor, teaches wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained (paragraph 0065, lines 1-31).

One of ordinary skill in the art would have clearly recognized that in order to control the broadcasting of a transmitted program, the reproduction of the transmitted program at the subscriber terminal should be established on the basis of the permission from the server. To establish and control the connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to control the reproduction of the broadcasting program at the subscriber terminal as taught by Yamaguchi in picture and sound decoding apparatus picture and sound encoding apparatus and information transmission system. By doing so the system would maintain the traffic load in the system and also, it will provide better security for the subscribers.

Regarding claim 53:

Art Unit: 2611

A system as claimed in claim 52, wherein:

- the broadcasting system is configured to transfer the broadcast program-associated data to the server, and the server is configured to receive the broadcast program-associated data from the broadcasting system (paragraph 69, lines 39-44).

Regarding claim 54:

A system as claimed in claim 52, wherein the broadcast program-associated data comprises:

- at least one of the following: text, sound, stationary picture, moving picture (the moving picture is interpreted as video) (paragraph 0045, line 3-9 and paragraph 0079, lines 8-12).

Regarding claim 55:

A system as claimed in claim 52, wherein the broadcast program-associated data comprises:

- information defining the broadcasting time of the program. (paragraph 0049, lines 4-11).

Regarding claim 56:

A system as claimed in claim 55, wherein:

- a user interface of the subscriber terminal (paragraph 0017, lines 3-6) is configured to start presenting the program on the basis of the information defining the broadcasting time (paragraph 0049, lines 4-15).

Regarding claim 57:

A system as claimed in claim 55, wherein:

Art Unit: 2611

- the subscriber terminal comprises a memory, and the subscriber terminal is configured to store the program into the memory on the basis of the information defining the broadcasting time (paragraph 0084, lines 26-34).

Regarding claim 58:

A system as claimed in claim 52, wherein:

- the server is configured to maintain a list of subscriber terminals that receive the broadcast program-associated data (subscriber database is interpreted as a server to maintain a list of subscriber terminals that receive the broadcast program-associated data) (figure 3, 205, paragraph 0052, lines 44-50).

Regarding claim 64:

A system as claimed in claim 52, wherein:

- the program comprises a radio program (figure 1, 102, 102N);
- the broadcast program-associated data comprises data associated with a radio program (figure 11, 308);
- the broadcasting system comprises a radio broadcasting system (figure 1, 102),
- the program receiver comprises a radio receiver (figure 11, 324),
- and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (paragraph 0052, line 10-11).

Regarding claim 67:

A system for broadcasting a program, the system comprising:

- a broadcasting system configured to broadcast a program over a broadcasting path of the broadcasting system (figure 1, paragraph 0046, lines 1-6);

Art Unit: 2611

- a server (the database is interpreted a server) (paragraph 0065, lines 1-6) configured to process broadcast program-associated data, said server is configured to process synchronization information that defines the synchronization of the transmission of the broadcast program-associated data with the broadcasting of the program (paragraph 0053, line 20-32); and
- a cellular radio network configured to receive from the server the broadcast program-associated data and synchronization information, said cellular radio network comprises a base station configured to transmit at a specific frequency defined for the cellular radio network the broadcast program-associated data in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program according to the synchronization information (paragraph 0053, line 1-32).

Noreen et al. discloses all of the subject matter as described above except for specifically wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained.

However, Yamaguchi et al., in the same field of endeavor, teaches wherein the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme in such a manner that the broadcast programme-

Art Unit: 2611

associated data is transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after a permission to do so has been obtained (paragraph 0065, lines 1-31).

One of ordinary skill in the art would have clearly recognized that in order to control the broadcasting of a transmitted program, the reproduction of the transmitted program at the subscriber terminal should be established on the basis of the permission from the server. To establish and control the connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to control the reproduction of the broadcasting program at the subscriber terminal as taught by Yamaguchi in picture and sound decoding apparatus picture and sound encoding apparatus and information transmission system. By doing so the system would maintain the traffic load in the system and also, it will provide better security for the subscribers.

Regarding claim 68:

A system as claimed in claim 52, wherein:

- the program comprises a radio program (figure 1, 102, 102N), the broadcast program-associated data comprises data associated with a radio program (figure 11, 308),
- the broadcasting system comprises a radio broadcasting system (figure 1, 102), and
- the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (paragraph 0052, line 10-11).

Regarding claim 70:

A subscriber terminal of a cellular radio network for receiving a program, the subscriber terminal (mobile unit is interpreted as subscriber terminal) (paragraph 004, lines 6-9) comprising:

- a program receiver (figure 15, 324) configured to receive a program from the broadcast path of a broadcasting system (figure 1, 102); and
- a cellular radio network transceiver (figure 15, 410) configured to receive broadcast program-associated data at a specific frequency (carrier frequency is interpreted to be the specific frequency)(paragraph 0011, line 33-36) defined for the cellular radio network (communication network is interpreted to be the cellular network) (figure 15, 406);

Noreen et al. discloses all of the subject matter as described above except for specifically wherein the reception of the broadcast program-associated data is synchronized with the reception of the program in such a manner that the cellular radio network is configured to receive the broadcast program-associated data and is further configured to receive a permission for using the broadcast program associated data transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after said permission to do so has been obtained.

However, Yamaguchi et al., in the same field of endeavor, wherein the reception of the broadcast program-associated data is synchronized with the reception of the program in such a manner that the cellular radio network is configured to receive the

Art Unit: 2611

broadcast program-associated data and is further configured to receive a permission for using the broadcast program associated data transmitted to the subscriber terminal so that the subscriber terminal receives the broadcast programme-associated data, but does not use the broadcast programme-associated data until after said permission to do so has been obtained (paragraph 0065, lines 1-31).

One of ordinary skill in the art would have clearly recognized that in order to control the broadcasting of a transmitted program, the reproduction of the transmitted program at the subscriber terminal should be established on the basis of the permission from the server. To establish and control the connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to control the reproduction of the broadcasting program at the subscriber terminal as taught by Yamaguchi in picture and sound decoding apparatus picture and sound encoding apparatus and information transmission system. By doing so the system would maintain the traffic load in the system and also, it will provide better security for the subscribers.

Regarding claim 71:

A subscriber terminal as claimed in claim 70, wherein:

- the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) also comprises a specific user application, with which the user easily manages the reception of the program and the broadcast program-associated data (the user application is interpreted to be a software which can be

Art Unit: 2611

downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (paragraph 0084, lines 26-34).

Regarding claim 72:

A subscriber terminal as claimed in claim 70, wherein:

- the user application is installed into the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) at the factory or downloaded to the subscriber terminal later by the vendor of the subscriber terminal, the cellular radio network operator or the user of the subscriber terminal (the user application is interpreted to a software which can be downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (paragraph 0084, lines 26-34).

Regarding claim 73:

A subscriber terminal as claimed in claim 70, wherein:

- the user application is personalized with the user profile of the user in such a manner that the type of the broadcast program-associated data that the subscriber terminal receives is specified in the user profile (user profile is interpreted to be an identification database which stores list of broadcasting programs and broadcasting data) (paragraph 0075, line 1-13).

Regarding claim 74:

A subscriber terminal as claimed in claim 70, wherein:

- the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) is configured to download ready-made user profiles (user

profile is interpreted as an identification database which stores list of broadcasting programs and broadcasting data) (paragraph 0075, line 1-13) from the mobile server (figure 16, 378).

Regarding claim 75:

A subscriber terminal as claimed in claim 70, wherein:

- for each user profile, a unique identifier is defined (subscriber identifier is interpreted to be a unique identifier) (paragraph 0054, lines 11-14), by means of which it is possible to identify the user application in each subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9).

Regarding claim 76:

A subscriber terminal as claimed in claim 70, wherein:

- when starting, the user application (the user application is interpreted to a software which can be downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (paragraph 0084, lines 26-34) is configured to offer the user the option of selecting a station (paragraph 0074, lines 31-34).

Regarding claim 77:

A subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) as claimed in claim 76, wherein:

- the user application is configured to find out the cell identifier implemented by the base station (paragraph 0011, lines 26-29),
- to transmit the identifier to the mobile server (client information database is interpreted to be the server) (paragraph 0011, lines 29-35), and

Art Unit: 2611

- to receive from the mobile server a list of stations received in the cell in question (paragraph 0011, line 29-35).

Regarding claim 78:

A subscriber terminal as claimed in claim 76, wherein:

- the user application is configured to receive from the mobile server a list of audible stations in the location according to the location information of the subscriber terminal (paragraph 0011, line 29-35).

Regarding claim 79:

A subscriber terminal as claimed in claim 76, wherein:

- the receiver (figure 15, 324) of the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) is configured to scan through the frequency spectrum and to transmit the scanning results or the frequencies of the receivable stations (paragraph 004, lines 29-32) to the mobile server, and
- to receive on the basis of the transmitted information a list of receivable stations defined by the mobile station (paragraph 004, lines 31-41).

Regarding claim 80:

A subscriber terminal as claimed in claim 76, wherein:

- the user interface (figure 15, 364, paragraph 0015, lines 3-6) of the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (paragraph 004, lines 6-9) is configured to receive the name of the location entered by the user (figure 11, 324), and

Art Unit: 2611

- the user application is configured to transmit (figure 11, 394) (the transmitter transmit data containing broadcasting information such as name and location) the name in question to the mobile server (broadcaster identification database contains information regarding the broadcasters) (figure 11, 372), and
- to receive the station list of the location transmitted by the mobile Server.

Regarding claim 81:

A subscriber terminal as claimed in claim 70, wherein:

- the program comprises a radio program, the broadcast program-associated data comprises data associated with a radio program (paragraph 0045, lines 6-9), and the broadcasting system broadcasting path comprises a radio broadcasting system (figure 1).

10. Claims 44-47, 50, 59-62, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al. and Yamaguchi et al. as applied to claims 37 and 52 above, and further in view of Tatsuji et al. (US Patent Number 2002/0151271).

Regarding claim 44:

Noreen et al. discloses all of the subject matter as described above except for specifically teaching a method as claimed in claim 77, wherein the method also comprises: establishing from the subscriber terminal a return channel through the base station to the server.

However, Tatsuji et al., in the same field of endeavor, teaches that transmission and reception of the data is carried out after a channel is established between the server (figure 5, 5) and portable terminal (channel is interpreted to be return channel and portable terminal is interpreted as subscriber terminal) (paragraph 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data to and from the broadcasting station.

Regarding claim 45:

Noreen et al. further discloses A method as claimed in claim 44, wherein the method also comprises:

- order a given program for broadcasting at a specific frequency defined for the cellular radio network. (paragraph 0013, lines 8-10) (carrier frequency is interpreted as specific frequency) (paragraph 0049, lines 5-8).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel to order a given program.

Art Unit: 2611

However, Tatsuji et al., in the same field of endeavor, teaches that that transmission and reception of the data is carried out after a channel is established between the server (figure 5, 5) and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (paragraph 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data to and from the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the mobile terminal.

Regarding Claim 46:

Tatsuji et al. further discloses a method as claimed in claim 44, wherein the method also comprises:

- using the return channel (channel is interpreted as a return channel) (paragraph 0161, lines 1-4) to transfer program-associated feedback information from the

subscriber terminal to the broadcasting system (data is interpreted to be feedback information) (paragraph 0059, line 6-8).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile unit uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the mobile terminal.

Regarding claim 47:

Noreen et al. further discloses method of making a purchase associated with an advertisement presented in the program and/or broadcast program-associated data (paragraph 004, lines 14-20).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel return channel.

However, Tatsuji et al., in the same field of endeavor, teaches that to use a return channel (channel is interpreted as a return channel) (paragraph 0161, lines 1-4) to make a purchase associated with an advertisement presented in the program and/or broadcast program-associated data.

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile unit uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the

Regarding claim 50:

Noreen et al. further discloses a method for broadcast program-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary

Art Unit: 2611

transmissions to an FM sub-carrier (carrier frequency is interpreted as specific data channel) (figure 1, paragraph 0047, lines 1-7 and paragraph 0049, lines 6-9).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching the method for multiplexing the radio program.

However Tatsuji et al. in the same field of endeavor, teaches the method for multiplexing the radio program for digital radio broadcasting (paragraph 0029, lines 5-7).

One of ordinary skill in the art would have clearly recognized that in order to receive digital radio broadcasting intended for a mobile terminal, the transmitted signal should be multiplexed. In doing so the one channel of the digital radio broadcast is separated into several segments. Of those segments some of them are allocated to the digital radio broadcasting and the remainder of those segments are allocated to the mobile units. To receive digital radio broadcasting into a mobile unit, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the multiplexing technique on the transmitted signal as taught by Tatsuji and forward it to the mobile units via mobile communication network. Additionally, multiplexing the transmission of the digital broadcasting via mobile communication provides convenient means to receive the digital radio broadcasting signals intended for a mobile units.

Regarding claim 59:

A system as claimed in claim 52, wherein: the cellular radio network transceiver of the subscriber terminal (figure 15, 410) and the base station (figure 1, 108) (the ground station is interpreted to be the base station).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching to establish a return channel through the base station to the server, and the base station is configured to receive the return channel.

However, Tatsuji et al., in the same field of endeavor, teaches that transmission and reception of the data is carried out after a channel is established between the server (figure 5,5) and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (paragraph 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request to network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station.

Regarding claim 60:

Noreen et al. further discloses a system as claimed in claim 59, wherein

- the subscriber terminal is configured to order a given program for broadcasting (paragraph 0013, lines 8-10) at a specific frequency defined for the cellular radio

Art Unit: 2611

network(carrier frequency is interpreted as specific frequency) (paragraph 0049, lines 5-8).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel to order a given program and the server is configured to receive the program order.

However, Tatsuji et al., in the same field of endeavor, teaches that that transmission and reception of the data is carried out after a channel is established between the server and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (paragraph 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. The mobile server is used to store and convert the broadcasting data in a format that can be reproduced by the mobile terminals. Also, by establishing the wireless communication channel, mobile terminal would be able to place purchase order using the mobile terminal.

Regarding claim 61:

Tatsuji et al. further discloses a system as claimed in claim 59, wherein

- The subscriber terminal is configured to use a return channel (channel is interpreted as a return channel) (paragraph 0161, lines 1-4) to transfer program-associated feedback information from the subscriber terminal to the broadcasting system and the broadcasting system is configured to receive the program-associated feedback information from the subscriber terminal (data is interpreted as feedback information) (paragraph 0059, line 6-8).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a wireless communication channel such as access channel (RACH). Once the connection is established between the mobile unit and the network via access channel, the mobile uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. The mobile server is used to store and convert the broadcasting data in a format that can be reproduced by

Art Unit: 2611

the mobile terminals. Also, by establishing the wireless communication channel, mobile terminal would be able to place purchase order using the mobile terminal.

Regarding claim 62:

Noreen et al. further discloses a system as claimed in claim 59, wherein:

- The subscriber terminal is configured to use a return channel to make a purchase associated with an advertisement presented in the program and/or broadcast program-associated data (paragraph 004, lines 14-20).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel return channel, and the server is configured to receive the purchase information from the subscriber terminal.

However, Tatsuji et al., in the same field of endeavor, teaches that to use a return channel (channel is interpreted as a return channel) (column 0161, lines 1-4) and the server is configured to receive the purchase information from the subscriber terminal (figure 2).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data or to make any transaction such as placing a purchase order, a communication link between a mobile unit and broadcasting system need to be established via a wireless communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile uses traffic channel (TCH) to sends data or any other information to network. In order to send a purchase order from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the

Art Unit: 2611

invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. Moreover, the mobile server is used to store and convert the broadcasting data in a format that can be reproduced by the mobile terminals. In addition, the server contains all the billing and user information. Also, by establishing the wireless communication channel, mobile would be able to place purchase order using the mobile terminal.

Regarding claim 65:

Noreen et al. further discloses a system as claimed in claim 52, wherein:

- the server is configured to multiplex the radio program and broadcast program-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary transmissions to an FM subcarrier (carrier frequency is interpreted as specific data channel) (figure 1, paragraph 0047, lines 1-7 and paragraph 0049, lines 6-9).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching to multiplex the radio program.

Tatsuji et al. in the same field of endeavor, teaches that the server is configured to multiplex the radio program and broadcast program-associated data for broadcasting in a digital radio broadcasting (paragraph 0029, lines 5-7).

One of ordinary skill in the art would have clearly recognized that in order to receive digital radio broadcasting intended for a mobile terminal, the transmitted signal

Art Unit: 2611

should be multiplexed. In doing so, one channel of the digital radio broadcast is separated into several segments. Of those segments, some of them are allocated to the digital radio broadcasting, and the remainder of those segments is allocated to the mobile units. To receive digital radio broadcasting in a mobile unit, it would have been obvious to one ordinary skill in the art at the time the invention was made to multiplex the transmitted signal as taught by Tasuji and forward it to the mobile units via mobile communication network. Additionally, transmission of the multiplexed digital broadcasting via mobile communication network provides convenient means to receive the digital radio broadcasting signals intended for a mobile units.

11. Claims 44-47, 50, 59-62, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al., Yamaguchi et al., and Tatsuji et al. as applied to claims 44 and 59 above, and further in view of Newell et al. (US Pub. Number 2002/0142764).

Regarding claim 48:

Tatsuji et al. further discloses a method as claimed in claim 44, wherein the method also comprises:

- using the return channel to transfer to the server data related to a game to be played in the subscriber terminal. (channel is interpreted as a return channel) (paragraph 0161, lines 1-4).

Art Unit: 2611

Noreen et al and Tatsuji et al. disclose all of the subject matter as described above except for specifically teaching a game to be played in the subscriber terminal.

However, Newell et al. in the same field of endeavor, teaches to transfer to the server (paragraph 0023, lines 9-11) data related to a game to be played in the subscriber terminal (paragraph 0030, lines 1-5).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data such as entertainment data or to make any transaction such as placing a purchase order, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile uses traffic channel (TCH) to sends data or any information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. Also, by establishing the wireless communication channels, the subscriber of the mobile terminal would be able to place purchase order and receive entertainment data such as games into the mobile terminals.

Regarding claim 63:

Tatsuji et al. further discloses a system as claimed in claim 59, wherein

Art Unit: 2611

- the subscriber terminal is configured to transfer to the server by using the return channel data related to a game to be played in the subscriber terminal, and the server is configured to receive the data related to the game from the subscriber terminal. (channel is interpreted as a return channel) (paragraph 0161, lines 1-4).

Noreen et al. and Tatsuji et al. disclose all of the subject matter as described above except for specifically teaching the subscriber terminal is configured to transfer to the server data related to a game to be played in the subscriber terminal, and the server is configured to receive the data related to the game from the subscriber terminal.

However, Newell et al. in the same field of endeavor teaches subscriber terminal is configured to transfer to the server (paragraph 0023, lines 9-11) data related to a game to be played in the subscriber terminal (paragraph 0030, lines 1-5).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data such as entertainment data or to make any transaction such as placing a purchase order, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile unit and the network via access channel, the mobile uses traffic channel (TCH) to send and receive data or any other information to/from network. In order to send and receive data to/from mobile unit to the broadcasting system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so

Art Unit: 2611

the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing the wireless communication channels, the subscriber of the mobile terminal would be able to place purchase order and receive entertainment data such as games into the mobile terminals.

12. Claims 82-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al. and Yamaguchi et al., and further in view of Langberg et al. (US Patent Number 5,852,630).

Noreen et al. and Yamaguchi et al. disclose all of the subject matter as described above except for the method written by a software program embodied in a computer-readable medium.

However, Langberg et al. teaches that the method and apparatus for a transceiver warm start activation procedure with precoding can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). One skilled in the art would have clearly recognized that the method of Noreen et al. and Yamaguchi et al. would have been implemented in software. The implemented software would perform same function of the hardware for

Art Unit: 2611

less expense, adaptability, and flexibility. Therefore, it would have been obvious to one ordinary skilled in the art at the time of the invention was made to use the software as taught by Langberg et al. in the Noreen et al. and Yamaguchi et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the

Art Unit: 2611

examiner should be directed to Kabir A. Timory whose telephone number is 571-270-1674. The examiner can normally be reached on 6:30 AM - 3:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kabir A. Timory
August 20, 2007



SHUWANG LIU
SUPERVISORY PATENT EXAMINER